## BRUHAT BANGALORE MAHANAGARA PALIKE

**Name of work: Comprehensive Development of Roads and Drains in Ward No. 1 and 2 in Yelahanka Sub Division**

**Measurement Sheet**

**3rd & Final Bill**

| Item No: | 4 |
|---|---|
| Item Name: | KSRRB 300-1. Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 1.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 |

**Measurement Date(s) :**

| Chainage / Land Mark | | Nos | L (m) | B (m) | B1 (m) | Avg B (m) | D (m) | Qty | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| **For New RCC Drain** | | | | | | | | | |
| **Isaac Layout** | | | | | | | | | |
| **1st Cross** | | | | | | | | | |
| 0.00 | 30.00 | 1 | 30.00 | 1.10 | | 1.10 | 0.75 | 24.75 | |
| 30.00 | 35.00 | 1 | 5.00 | 1.10 | | 1.10 | 0.75 | 4.13 | |
| **6th Cross** | | | | | | | | | |
| 0.00 | 30.00 | 1 | 30.00 | 1.10 | | 1.10 | 0.75 | 24.75 | |
| 30.00 | 32.00 | 1 | 2.00 | 1.10 | | 1.10 | 0.75 | 1.65 | |
| **8th Cross** | | | | | | | | | |
| 0.00 | 30.00 | 1 | 30.00 | 1.10 | | 1.10 | 0.75 | 24.75 | |
| 30.00 | 35.00 | 1 | 5.00 | 1.10 | | 1.10 | 0.75 | 4.13 | |
| **10th Cross** | | | | | | | | | |
| 0.00 | 30.00 | 1 | 30.00 | 1.10 | | 1.10 | 0.75 | 24.75 | |
| 30.00 | 33.00 | 1 | 3.00 | 1.10 | | 1.10 | 0.75 | 2.48 | |
| **Chowdeshwari Layout Main Road** | | | | | | | | | |
| 0.00 | 27.40 | 1 | 27.40 | 1.00 | | 1.00 | 1.05 | 28.77 | |
| 27.40 | 32.40 | 1 | 5.00 | 1.00 | | 0.60 | 0.90 | 2.70 | Culvert |
| 32.40 | 50.00 | 1 | 17.60 | 1.20 | | 1.20 | 1.35 | 28.51 | |
| 50.00 | 80.00 | 1 | 30.00 | 1.20 | | 1.20 | 1.35 | 48.60 | |
| 80.00 | 89.90 | 1 | 9.90 | 1.20 | | 1.20 | 1.35 | 16.04 | |
| **2nd Main Surabhi Layout** | | | | | | | | 0.00 | |
| **Cross:-1 (LHS)** | | | | | | | | | |
| 0.00 | 30.00 | 1 | 30.00 | 1.00 | | 1.00 | 0.75 | 22.50 | |
| 30.00 | 60.00 | 1 | 30.00 | 1.00 | | 1.00 | 0.75 | 22.50 | |
| 60.00 | 90.00 | 1 | 30.00 | 1.00 | | 1.00 | 0.75 | 22.50 | |
| 90.00 | 101.40 | 1 | 11.40 | 1.00 | | 1.00 | 0.75 | 8.55 | |
| 101.40 | 107.40 | 1 | 6.00 | 1.30 | | 1.30 | 0.75 | 5.85 | Culvert |
| 107.40 | 132.40 | 1 | 25.00 | 1.00 | | 1.00 | 0.75 | 18.75 | |
| 132.40 | 138.80 | 1 | 6.40 | 1.30 | | 1.30 | 0.75 | 6.24 | Culvert |
| 138.80 | 150.00 | 1 | 11.20 | 1.00 | | 1.00 | 0.75 | 8.40 | |
| 150.00 | 180.00 | 1 | 30.00 | 1.00 | | 1.00 | 0.75 | 22.50 | |

For Arcot Consulting Engineers (India) Pvt. Ltd.,

Asst. Executive Engineer
Yelahanka Sub. Divison
(BBMP Ynk. Zn)
Yelahanka, Bangalore

| Chainage | | Nos | L | B | B1 | Avg B | D | Qty | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| Land Mark | | | (m) | (m) | (m) | (m) | (m) | | |
| 180.00 | 210.00 | 1 | 30.00 | 1.00 | | 1.00 | 0.75 | 22.50 | |
| 210.00 | 240.00 | 1 | 30.00 | 1.00 | | 1.00 | 0.75 | 22.50 | |
| 240.00 | 270.00 | 1 | 30.00 | 1.00 | | 1.00 | 0.75 | 22.50 | |
| 270.00 | 282.10 | 1 | 12.10 | 1.00 | | 1.00 | 0.75 | 9.08 | |
| **Cross:-1(RHS)** | | | | | | | | 0.00 | |
| 0.00 | 30.00 | 1 | 30.00 | 1.00 | | 1.00 | 0.75 | 22.50 | |
| 30.00 | 60.00 | 1 | 30.00 | 1.00 | | 1.00 | 0.75 | 22.50 | |
| 60.00 | 90.00 | 1 | 30.00 | 1.00 | | 1.00 | 0.75 | 22.50 | |
| 90.00 | 98.30 | 1 | 8.30 | 1.00 | | 1.00 | 0.75 | 6.23 | |
| **2nd Main** | | | | | | | | | |
| **Cross:-2(LHS & RHS)** | | | | | | | | | |
| 0.00 | 30.00 | 2 | 30.00 | 1.00 | | 1.00 | 0.75 | 45.00 | |
| 30.00 | 60.00 | 2 | 30.00 | 1.00 | | 1.00 | 0.75 | 45.00 | |
| 60.00 | 90.00 | 2 | 30.00 | 1.00 | | 1.00 | 0.75 | 45.00 | |
| 90.00 | 93.30 | 2 | 3.30 | 1.00 | | 1.00 | 0.75 | 4.95 | |
| **3rd Main** | | | | | | | | | |
| **Cross:-1(RHS)** | | | | | | | | | |
| 0.00 | 30.00 | 1 | 30.00 | 1.00 | | 1.00 | 0.75 | 22.50 | |
| 30.00 | 36.30 | 1 | 6.30 | 1.00 | | 1.00 | 0.75 | 4.73 | |
| **Cross:-2(RHS)** | | | | | | | | 0.00 | |
| 0.00 | 30.00 | 1 | 30.00 | 1.00 | | 1.00 | 0.75 | 22.50 | |
| 30.00 | 60.00 | 1 | 30.00 | 1.00 | | 1.00 | 0.75 | 22.50 | |
| 60.00 | 86.40 | 1 | 26.40 | 1.00 | | 1.00 | 0.75 | 19.80 | |
| **5th Cross Road Venkatala** | | | | | | | | | |
| **Cross Road( LHS & RHS)** | | | | | | | | | |
| 0.00 | 30.00 | 2 | 30.00 | 1.00 | | 1.00 | 0.75 | 45.00 | |
| 30.00 | 38.00 | 2 | 8.00 | 1.00 | | 1.00 | 0.75 | 12.00 | |
| | | | | | | | | | |
| 0.00 | 4.50 | 1 | 4.50 | 1.00 | | 1.00 | 0.75 | 3.38 | |
| **For Cobble Stones** | | | | | | | | | |
| 0.00 | 8.15 | 1 | 8.15 | 3.90 | | 3.90 | 0.20 | 6.36 | |
| 0.00 | 13.70 | 1 | 13.70 | 18.70 | | 18.70 | 0.20 | 51.24 | |
| 0.00 | 5.90 | 1 | 5.90 | 8.95 | | 8.95 | 0.20 | 10.56 | |
| 0.00 | 13.40 | 1 | 13.40 | 12.00 | | 12.00 | 0.20 | 32.16 | |
| 0.00 | 5.60 | 1 | 5.60 | 3.60 | | 3.60 | 0.20 | 4.03 | |
| 0.00 | 5.90 | 1 | 5.90 | 3.80 | | 3.80 | 0.20 | 4.48 | |
| 0.00 | 15.30 | 1 | 15.30 | 14.00 | | 14.00 | 0.20 | 42.84 | |
| 0.00 | 3.00 | 1 | 3.00 | 0.90 | | 0.90 | 0.20 | 0.54 | |
| 0.00 | 8.60 | 1 | 8.60 | 2.90 | | 2.90 | 0.20 | 4.99 | |
| 0.00 | 4.00 | 1 | 4.00 | 4.60 | | 4.60 | 0.20 | 1.84 | Triangle Portion |

For Alaca Consulting Engineers (India) Pvt. Ltd.,

Velananx... ...on
...188MP ...
...chenka, Bangalore

| Chainage | | Nos | L | B | B1 | Avg B | D | Qty | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| Land Mark | | | (m) | (m) | (m) | (m) | (m) | | |
| 0.00 | 8.00 | 1 | 8.00 | 2.00 | | 2.00 | 0.20 | 3.20 | |
| 0.00 | 6.40 | 1 | 6.40 | 8.20 | | 8.20 | 0.20 | 10.50 | |
| 0.00 | 5.50 | 1 | 5.50 | 7.00 | | 7.00 | 0.20 | 7.70 | |
| 0.00 | 8.60 | 1 | 8.60 | 2.00 | | 2.00 | 0.20 | 3.44 | |
| 0.00 | 6.10 | 1 | 6.10 | 2.00 | | 2.00 | 0.20 | 2.44 | |
| 0.00 | 12.00 | 1 | 12.00 | 3.10 | | 3.10 | 0.20 | 7.44 | |
| | | | | | | | Total Qty | 1010.19 | Cum |

Contractor Representative

For Alcon Consulting Engineers (India) Pvt. Ltd.,
Consultant Representative

Assistant Engineer
Ward No. 01 & 02
BBMP

Asst.Executive Engineer
Yelahanka Sub-Division
BBMP

## BRUHAT BANGALORE MAHANAGARA PALIKE

**Name of work: Comprehensive Development of Roads and Drains in Ward No. 1 and 2 in Yelahanka Sub Division**

**Measurement Sheet**

**3rd & Final Bill**

| Item No: | 11 |
|---|---|
| Item Name: | KSRB-4-1.2 : Providing and laying in position plain cement concrete of mix 1:3 withOPC cement at 220kgs, with 40mm and down size graded granite metal coar aggregates @0.892cum and fine aggregates @0.465cum machine mixed, concrete la in layers not, exceeding 15cms, thick, well compacted, in foundation and plint including cost of all materials, labour, HOM of machinery, curing complete as p specifications |

**Measurement Date(s) :**

| Chainage / Land Mark | Nos | L (m) | B (m) | B1 (m) | Avg B (m) | D (m) | Qty | REMARK |
|---|---|---|---|---|---|---|---|---|
| **For New RCC Drain** | | | | | | | | |
| **Isaac Layout** | | | | | | | | |
| **1st Cross** | | | | | | | | |
| 0.00 | 30.00 | 1 | 30.00 | 1.10 | | 1.10 | 0.10 | 3.30 | |
| 30.00 | 35.00 | 1 | 5.00 | 1.10 | | 1.10 | 0.10 | 0.55 | |
| **6th Cross** | | | | | | | | |
| 0.00 | 30.00 | 1 | 30.00 | 1.10 | | 1.10 | 0.10 | 3.30 | |
| 30.00 | 32.00 | 1 | 2.00 | 1.10 | | 1.10 | 0.10 | 0.22 | |
| **8th Cross** | | | | | | | | |
| 0.00 | 30.00 | 1 | 30.00 | 1.10 | | 1.10 | 0.10 | 3.30 | |
| 30.00 | 35.00 | 1 | 5.00 | 1.10 | | 1.10 | 0.10 | 0.55 | |
| **10th Cross** | | | | | | | | |
| 0.00 | 30.00 | 1 | 30.00 | 1.10 | | 1.10 | 0.10 | 3.30 | |
| 30.00 | 33.00 | 1 | 3.00 | 1.10 | | 1.10 | 0.10 | 0.33 | |
| **Chowdeshwari Layout Main Road** | | | | | | | | |
| 0.00 | 27.40 | 1 | 27.40 | 1.00 | | 1.00 | 0.10 | 2.74 | |
| 27.40 | 32.40 | 1 | 5.00 | | | | | 0.00 | Culvert |
| 32.40 | 50.00 | 1 | 17.60 | 1.20 | | 1.20 | 0.10 | 2.11 | |
| 50.00 | 80.00 | 1 | 30.00 | 1.20 | | 1.20 | 0.10 | 3.60 | |
| 80.00 | 89.90 | 1 | 9.90 | 1.20 | | 1.20 | 0.10 | 1.19 | |
| **2nd Main Surabhi Layout** | | | | | | | | | |
| **Cross:-1(LHS)** | | | | | | | | | |
| 0.00 | 30.00 | 1 | 30.00 | 1.00 | | 1.00 | 0.10 | 3.00 | |
| 30.00 | 60.00 | 1 | 30.00 | 1.00 | | 1.00 | 0.10 | 3.00 | |
| 60.00 | 90.00 | 1 | 30.00 | 1.00 | | 1.00 | 0.10 | 3.00 | |
| 90.00 | 101.40 | 1 | 11.40 | 1.00 | | 1.00 | 0.10 | 1.14 | |
| 101.40 | 107.40 | 1 | 6.00 | 1.20 | | 1.20 | 0.10 | 0.72 | Culvert |
| 107.40 | 132.40 | 1 | 25.00 | 1.00 | | 1.00 | 0.10 | 2.50 | |
| 132.40 | 138.80 | 1 | 6.40 | 1.20 | | 1.20 | 0.10 | 0.77 | Culvert |
| 138.80 | 150.00 | 1 | 11.20 | 1.00 | | 1.00 | 0.10 | 1.12 | |

For Nagarjuna Consulting Engineers (India) Pvt. Ltd.,

Asst. Exe. Engr.
Yel

| Chainage | | Nos | L | B | B1 | Avg B | D | Qty | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| Land Mark | | | (m) | (m) | (m) | (m) | (m) | | |
| 150.00 | 180.00 | 1 | 30.00 | 1.00 | | 1.00 | 0.10 | 3.00 | |
| 180.00 | 210.00 | 1 | 30.00 | 1.00 | | 1.00 | 0.10 | 3.00 | |
| 210.00 | 240.00 | 1 | 30.00 | 1.00 | | 1.00 | 0.10 | 3.00 | |
| 240.00 | 270.00 | 1 | 30.00 | 1.00 | | 1.00 | 0.10 | 3.00 | |
| 270.00 | 282.10 | 1 | 12.10 | 1.00 | | 1.00 | 0.10 | 1.21 | |
| **Cross:-1(RHS)** | | | | | | | | | |
| 0.00 | 30.00 | 1 | 30.00 | 1.00 | | 1.00 | 0.10 | 3.00 | |
| 30.00 | 60.00 | 1 | 30.00 | 1.00 | | 1.00 | 0.10 | 3.00 | |
| 60.00 | 90.00 | 1 | 30.00 | 1.00 | | 1.00 | 0.10 | 3.00 | |
| 90.00 | 98.30 | 1 | 8.30 | 1.00 | | 1.00 | 0.10 | 0.83 | |
| **Cross:-2(LHS & RHS)** | | | | | | | | | |
| 0.00 | 30.00 | 2 | 30.00 | 1.00 | | 1.00 | 0.10 | 6.00 | |
| 30.00 | 60.00 | 2 | 30.00 | 1.00 | | 1.00 | 0.10 | 6.00 | |
| 60.00 | 90.00 | 2 | 30.00 | 1.00 | | 1.00 | 0.10 | 6.00 | |
| 90.00 | 93.30 | 2 | 3.30 | 1.00 | | 1.00 | 0.10 | 0.66 | |
| **3rd Main** | | | | | | | | | |
| **Cross:-1(RHS)** | | | | | | | | | |
| 0.00 | 30.00 | 1 | 30.00 | 1.00 | | 1.00 | 0.10 | 3.00 | |
| 30.00 | 36.30 | 1 | 6.30 | 1.00 | | 1.00 | 0.10 | 0.63 | |
| **Cross:-2(RHS)** | | | | | | | | | |
| 0.00 | 30.00 | 1 | 30.00 | 1.00 | | 1.00 | 0.10 | 3.00 | |
| 30.00 | 60.00 | 1 | 30.00 | 1.00 | | 1.00 | 0.10 | 3.00 | |
| 60.00 | 86.40 | 1 | 26.40 | 1.00 | | 1.00 | 0.10 | 2.64 | |
| **5th Cross Road Venkatala** | | | | | | | | | |
| **Cross Road( LHS & RHS)** | | | | | | | | | |
| 0.00 | 30.00 | 2 | 30.00 | 1.00 | | 1.00 | 0.10 | 6.00 | |
| 30.00 | 38.00 | 2 | 8.00 | 1.00 | | 1.00 | 0.10 | 1.60 | |
| | | | | | | | | | |
| 0.00 | 4.50 | 1 | 4.50 | 1.00 | | 1.00 | 0.10 | 0.45 | |
| | | | | | | | **Total Qty** | **101.76** | **Cum** |

Contractor Representative

For Aecon Consulting Engineers (India) Pvt. Ltd.,
Consultant Representative

Assistant Engineer
Ward No. 01 & 02
BBMP

Asst.Executive Engineer
Yelahanka Sub-Division
BBMP

## BRUHAT BANGALORE MAHANAGARA PALIKE

**Name of work: Comprehensive Development of Roads and Drains in Ward No. 1 and 2 in Yelahanka Sub Division**

**Measurement Sheet**

**3rd & Final Bill**

| Item No: | 15 |
|---|---|
| Item Name: | KSRB 4-6.4 : Providing and removing centering, shuttering, strutting, propping etc and removal of form work for vertical surface such as walls at any thickness including attached pilasters, buttresses, plinth and string courses cost of all material labour complete as per specificaitons. Specification No. KBS 4.6.2 |

**Measurement Date(s) :**

| Chainage / Land Mark | | | Nos | L (m) | B (m) | B1 (m) | Avg B (m) | D (m) | Qty | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| **2nd Main Surabhi Layout** | | | | | | | | | | |
| **Cross:-1(RHS)** | | | | | | | | | | |
| | 101.4 | 107.4 | 4 | 6.00 | | | | 0.60 | 14.40 | Culvert |
| | 132.4 | 138.8 | 4 | 6.40 | | | | 0.60 | 15.36 | Culvert |
| | | | | | | | | **Total Qty** | **29.76** | **Sqm** |

Contractor Representative

For Alaca Consulting Engineers (India) Pvt. Ltd.,
Consultant Representative

Assistant Engineer
Ward No. 01 & 02
BBMP

Asst.Executive Engineer
Yelahanka Sub-Division
BBMP

**BRUHAT BANGALORE MAHANAGARA PALIKE**

**Name of work: Comprehensive Development of Roads and Drains in Ward No. 1 and 2 in Yelahanka Sub Division**

**Measurement Sheet**

**3rd & Final Bill**

| | |
|---|---|
| **Item No:** | **16** |
| **Item Name:** | **KSRB 4-6.3 : Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for flat surface such as suspended floors, roofs, landings, balconies and likes, thickness above 200 mm including cost of all materials, labour complete as per specification. Specification No. KBS 4.6.2 (Page No 15., I.No.4.30 of KPWD S.R 2015-16).** |

**Measurement Date(s) :**

| Chainage / Land Mark | | Nos | L (m) | B (m) | B1 (m) | Avg B (m) | D (m) | Qty | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| **Harohalli Deck Slab** | | | | | | | | | |
| 0.0 | 8.9 | 2 | 5.80 | | | | 0.35 | 4.06 | |
| **Sides** | | | | | | | | | |
| 0.0 | 8.9 | 2 | 8.90 | | | | 0.35 | 6.23 | |
| **For Parapet Wall** | | | | | | | | | |
| 0.0 | 5.8 | 4 | 5.80 | | | | 0.80 | 18.56 | |
| **For Sides** | | | | | | | | | |
| 0.0 | 0.8 | 4 | 0.25 | | | | 0.80 | 0.80 | |
| | | | | | | | **Total Qty** | **29.65** | **Sqm** |

Contractor Representative

For Aleon Consulting Engineers (India) Pvt. Ltd.,

Consultant Representative

Assistant Engineer
Ward No. 01 & 02
BBMP

Asst.Executive Engineer
Yelahanka Sub-Division
BBMP

## BRUHAT BANGALORE MAHANAGARA PALIKE

**Name of work: Comprehensive Development of Roads and Drains in Ward No. 1 and 2 in Yelahanka Sub Division**

**Measurement Sheet**

**3rd & Final Bill**

| | |
|---|---|
| **Item No:** | 17 |
| **Item Name:** | Providing and laying plain / reinforced cement concrete M20 for box drain walls thickness 10cm to 20cm including centring shuttering for work etc. complete as p approved drawing and design MORTH specification No 1500, 1700, 2200 |

**Measurement Date(s) :**

| Chainage / Land Mark | | Nos | L (m) | B (m) | B1 (m) | Avg B (m) | D (m) | Qty | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| **Raft Concrete For New RCC Drain** | | | | | | | | | |
| **Isaac Layout** | | | | | | | | | |
| **1st Cross** | | | | | | | | | |
| 0.00 | 30.00 | 1 | 30.00 | 0.90 | | 0.90 | 0.15 | 4.05 | |
| 30.00 | 35.00 | 1 | 5.00 | 0.90 | | 0.90 | 0.15 | 0.68 | |
| **6th Cross** | | | | | | | | | |
| 0.00 | 30.00 | 1 | 30.00 | 0.90 | | 0.90 | 0.15 | 4.05 | |
| 30.00 | 32.00 | 1 | 2.00 | 0.90 | | 0.90 | 0.15 | 0.27 | |
| **8th Cross** | | | | | | | | | |
| 0.00 | 30.00 | 1 | 30.00 | 0.90 | | 0.90 | 0.15 | 4.05 | |
| 30.00 | 35.00 | 1 | 5.00 | 0.90 | | 0.90 | 0.15 | 0.68 | |
| **10th Cross** | | | | | | | | | |
| 0.00 | 30.00 | 1 | 30.00 | 0.90 | | 0.90 | 0.15 | 4.05 | |
| 30.00 | 33.00 | 1 | 3.00 | 0.90 | | 0.90 | 0.15 | 0.41 | |
| **Chowdeshwari Layout Main Road** | | | | | | | | | |
| 0.0 | 27.4 | 1 | 27.40 | 0.90 | | 0.90 | 0.15 | 3.70 | |
| 27.4 | 32.4 | 1 | 5.00 | | | | | 0.00 | Culvert |
| 32.4 | 50.0 | 1 | 17.60 | 1.20 | | 1.20 | 0.15 | 3.17 | |
| 50.0 | 80.0 | 1 | 30.00 | 1.20 | | 1.20 | 0.15 | 5.40 | |
| 80.0 | 89.9 | 1 | 9.90 | 1.20 | | 1.20 | 0.15 | 1.78 | |
| **2nd Main Surabhi Layout** | | | | | | | | | |
| **Cross:-1(RHS)** | | | | | | | | 0.00 | |
| 0.0 | 30.0 | 1 | 30.00 | 0.90 | | 0.90 | 0.15 | 4.05 | |
| 30.0 | 60.0 | 1 | 30.00 | 0.90 | | 0.90 | 0.15 | 4.05 | |
| 60.0 | 90.0 | 1 | 30.00 | 0.90 | | 0.90 | 0.15 | 4.05 | |
| 90.0 | 101.4 | 1 | 11.40 | 0.90 | | 0.90 | 0.15 | 1.54 | |
| 101.4 | 107.4 | 1 | 6.00 | 1.20 | | 1.20 | 0.15 | 1.08 | Culvert |
| 107.4 | 132.4 | 1 | 25.00 | 0.90 | | 0.90 | 0.15 | 3.38 | |
| 132.4 | 138.8 | 1 | 6.40 | 1.20 | | 1.20 | 0.15 | 1.15 | Culvert |
| 138.8 | 150.0 | 1 | 11.20 | 0.90 | | 0.90 | 0.15 | 1.51 | |
| 150.0 | 180.0 | 1 | 30.00 | 0.90 | | 0.90 | 0.15 | 4.05 | |
| 180.0 | 210.0 | 1 | 30.00 | 0.90 | | 0.90 | 0.15 | 4.05 | |
| 210.0 | 240.0 | 1 | 30.00 | 0.90 | | 0.90 | 0.15 | 4.05 | |

For Alsca Consulting Engineers (India) Pvt. Ltd.,

Asst. Executive Engineer
Yelahanka Sub Divison
(BBMP Yelk. Zn)
Yelahanka, Bangalore

| Chainage | | Nos | L | B | B1 | Avg B | D | Qty | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| Land Mark | | | (m) | (m) | (m) | (m) | (m) | | |
| 240.0 | 270.0 | 1 | 30.00 | 0.90 | | 0.90 | 0.15 | 4.05 | |
| 270.0 | 282.1 | 1 | 12.10 | 0.90 | | 0.90 | 0.15 | 1.63 | |
| **Cross:-1(LHS)** | | | | | | | | 0.00 | |
| 0.0 | 30.0 | 1 | 30.00 | 0.90 | | 0.90 | 0.15 | 4.05 | |
| 30.0 | 60.0 | 1 | 30.00 | 0.90 | | 0.90 | 0.15 | 4.05 | |
| 60.0 | 90.0 | 1 | 30.00 | 0.90 | | 0.90 | 0.15 | 4.05 | |
| 90.0 | 98.3 | 1 | 8.30 | 0.90 | | 0.90 | 0.15 | 1.12 | |
| **2nd Main** | | | | | | | | | |
| **Cross:-2(RHS& LHS))** | | | | | | | | 0.00 | |
| 0.0 | 30.0 | 2 | 30.00 | 0.90 | | 0.90 | 0.15 | 8.10 | |
| 30.0 | 60.0 | 2 | 30.00 | 0.90 | | 0.90 | 0.15 | 8.10 | |
| 60.0 | 90.0 | 2 | 30.00 | 0.90 | | 0.90 | 0.15 | 8.10 | |
| 90.0 | 93.3 | 2 | 3.30 | 0.90 | | 0.90 | 0.15 | 0.89 | |
| **3rd Main** | | | | | | | | | |
| **Cross:-1(RHS)** | | | | | | | | | |
| 0.0 | 30.0 | 1 | 30.00 | 0.90 | | 0.90 | 0.15 | 4.05 | |
| 30.0 | 36.3 | 1 | 6.30 | 0.90 | | 0.90 | 0.15 | 0.85 | |
| **Cross:-2(RHS)** | | | | | | | | 0.00 | |
| 0.0 | 30.0 | 1 | 30.00 | 0.90 | | 0.90 | 0.15 | 4.05 | |
| 30.0 | 60.0 | 1 | 30.00 | 0.90 | | 0.90 | 0.15 | 4.05 | |
| 60.0 | 86.4 | 1 | 26.40 | 0.90 | | 0.90 | 0.15 | 3.56 | |
| **5th Cross Road Venkatala** | | | | | | | | | |
| **Cross Road( LHS & RHS)** | | | | | | | | | |
| 0.00 | 30.00 | 2 | 30.00 | 0.75 | | 0.75 | 0.15 | 6.75 | |
| 30.00 | 38.00 | 2 | 8.00 | 0.75 | | 0.75 | 0.15 | 1.80 | |
| | | | | | | | | | |
| 0.00 | 4.50 | 1 | 4.50 | 0.75 | | 0.75 | 0.15 | 0.51 | |
| **Wall Concrete For New RCC Drain** | | | | | | | | | |
| **Isaac Layout** | | | | | | | | | |
| **1st Cross** | | | | | | | | | |
| 0.00 | 30.00 | 2 | 30.00 | 0.15 | | 0.15 | 0.60 | 5.40 | |
| 30.00 | 35.00 | 2 | 5.00 | 0.15 | | 0.15 | 0.60 | 0.90 | |
| **6th Cross** | | | | | | | | | |
| 0.00 | 30.00 | 2 | 30.00 | 0.15 | | 0.15 | 0.60 | 5.40 | |
| 30.00 | 32.00 | 2 | 2.00 | 0.15 | | 0.15 | 0.60 | 0.36 | |
| **8th Cross** | | | | | | | | | |
| 0.00 | 30.00 | 2 | 30.00 | 0.15 | | 0.15 | 0.60 | 5.40 | |
| 30.00 | 35.00 | 2 | 5.00 | 0.15 | | 0.15 | 0.60 | 0.90 | |
| **10th Cross** | | | | | | | | | |
| 0.00 | 30.00 | 2 | 30.00 | 0.15 | | 0.15 | 0.60 | 5.40 | |
| 30.00 | 33.00 | 2 | 3.00 | 0.15 | | 0.15 | 0.60 | 0.54 | |
| **Chowdeshwari Layout Main Road** | | | | | | | | | |
| 0.0 | 27.4 | 2 | 27.40 | 0.15 | | 0.15 | 0.90 | 7.40 | |
| 27.4 | 32.4 | 2 | 5.00 | | | | | 0.00 | Culvert |

For Aecon Consulting Engineers (India) Pvt. Ltd.,



Asst. Executive Engineer
Yelahanka Sub. Division
(BBMP Ynk. Zn)
Yelahanka, Bangalore

| Chainage | | Nos | L | B | B1 | Avg B | D | Qty | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| Land Mark | | | (m) | (m) | (m) | (m) | (m) | | |
| 32.4 | 50.0 | 2 | 17.60 | 0.15 | | 0.15 | 1.20 | 6.34 | |
| 50.0 | 80.0 | 2 | 30.00 | 0.15 | | 0.15 | 1.20 | 10.80 | |
| 80.0 | 89.9 | 2 | 9.90 | 0.15 | | 0.15 | 1.20 | 3.56 | |
| **2nd Main Surabhi Layout** | | | | | | | | | |
| **Cross:-1(RHS)** | | | | | | | | | |
| 0.0 | 30.0 | 2 | 30.00 | 0.15 | | 0.15 | 0.60 | 5.40 | |
| 30.0 | 60.0 | 2 | 30.00 | 0.15 | | 0.15 | 0.60 | 5.40 | |
| 60.0 | 90.0 | 2 | 30.00 | 0.15 | | 0.15 | 0.60 | 5.40 | |
| 90.0 | 101.4 | 2 | 11.40 | 0.15 | | 0.15 | 0.60 | 2.05 | |
| 101.4 | 107.4 | 2 | 6.00 | 0.20 | | 0.20 | 0.60 | 1.44 | Culvert |
| 107.4 | 132.4 | 2 | 25.00 | 0.15 | | 0.15 | 0.60 | 4.50 | |
| 132.4 | 138.8 | 2 | 6.40 | 0.20 | | 0.20 | 0.60 | 1.54 | Culvert |
| 138.8 | 150.0 | 2 | 11.20 | 0.15 | | 0.15 | 0.60 | 2.02 | |
| 150.0 | 180.0 | 2 | 30.00 | 0.15 | | 0.15 | 0.60 | 5.40 | |
| 180.0 | 210.0 | 2 | 30.00 | 0.15 | | 0.15 | 0.60 | 5.40 | |
| 210.0 | 240.0 | 2 | 30.00 | 0.15 | | 0.15 | 0.60 | 5.40 | |
| 240.0 | 270.0 | 2 | 30.00 | 0.15 | | 0.15 | 0.60 | 5.40 | |
| 270.0 | 282.1 | 2 | 12.10 | 0.15 | | 0.15 | 0.60 | 2.18 | |
| **Cross:-1(LHS)** | | | | | | | | | |
| 0.0 | 30.0 | 2 | 30.00 | 0.15 | | 0.15 | 0.60 | 5.40 | |
| 30.0 | 60.0 | 2 | 30.00 | 0.15 | | 0.15 | 0.60 | 5.40 | |
| 60.0 | 90.0 | 2 | 30.00 | 0.15 | | 0.15 | 0.60 | 5.40 | |
| 90.0 | 98.3 | 2 | 8.30 | 0.15 | | 0.15 | 0.60 | 1.49 | |
| **2nd Main Surabhi Layout** | | | | | | | | | |
| **Cross:-2(RHS& LHS)** | | | | | | | | | |
| 0.0 | 30.0 | 4 | 30.00 | 0.15 | | 0.15 | 0.60 | 10.80 | |
| 30.0 | 60.0 | 4 | 30.00 | 0.15 | | 0.15 | 0.60 | 10.80 | |
| 60.0 | 90.0 | 4 | 30.00 | 0.15 | | 0.15 | 0.60 | 10.80 | |
| 90.0 | 93.3 | 4 | 3.30 | 0.15 | | 0.15 | 0.60 | 1.19 | |
| **3rd Main Surabhi Layout** | | | | | | | | | |
| **Cross:-1(RHS)** | | | | | | | | | |
| 0.0 | 30.0 | 2 | 30.00 | 0.15 | | 0.15 | 0.60 | 5.40 | |
| 30.0 | 36.3 | 2 | 6.30 | 0.15 | | 0.15 | 0.60 | 1.13 | |
| **Cross:-2(RHS)** | | | | | | | | 0.00 | |
| 0.0 | 30.0 | 2 | 30.00 | 0.15 | | 0.15 | 0.60 | 5.40 | |
| 30.0 | 60.0 | 2 | 30.00 | 0.15 | | 0.15 | 0.60 | 5.40 | |
| 60.0 | 86.4 | 2 | 26.40 | 0.15 | | 0.15 | 0.60 | 4.75 | |
| **5th Cross Road Venkatala** | | | | | | | | | |
| **Cross Road( LHS & RHS)** | | | | | | | | | |
| 0.00 | 30.00 | 4 | 30.00 | 0.15 | | 0.15 | 0.50 | 9.00 | |
| 30.00 | 38.00 | 4 | 8.00 | 0.15 | | 0.15 | 0.50 | 2.40 | |
| | | | | | | | | | |
| 0.00 | 4.50 | 2 | 4.50 | 0.15 | | 0.15 | 0.50 | 0.68 | |

For Nikra Consulting Engineers (India) Pvt. Ltd.,

Asst. Executive Engineer
Yelahanka Sub. Divison
(BBMP Ynk. Zn)
Yelahanka, Bangalore

| Chainage / Land Mark | | Nos | L (m) | B (m) | B1 (m) | Avg B (m) | D (m) | Qty | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| **Harohalli Deck Slab** | | | | | | | | | |
| 0.0 | 8.9 | 1 | 8.90 | 5.80 | | 5.80 | 0.30 | 15.49 | |
| **For Parapet Wall** | | | | | | | | | |
| 0.0 | 5.8 | 2 | 5.80 | 0.25 | | 0.25 | 0.80 | 2.32 | |
| **For Approach** | | | | | | | | | |
| 0.0 | 1.2 | 0.5 | 1.20 | 7.80 | | 7.80 | 0.20 | 0.94 | |
| 0.0 | 2.8 | 0.5 | 2.80 | 9.15 | | 9.15 | 0.30 | 3.84 | |
| | | | | | | | **Total Qty** | **346.95** | **Cum** |

Contractor Representative

For Aecom Consulting Engineers (India) Pvt. Ltd.,
Consultant Representative

Assistant Engineer
Ward No. 01 & 02
BBMP

Asst.Executive Engineer
Yelahanka Sub-Division
BBMP

**BRUHAT BANGALORE MAHANAGARA PALIKE**

**Name of work: Comprehensive Development of Roads and Drains in Ward No. 1 and 2 in Yelahanka Sub Division**

**Measurement Sheet**

**3rd & Final Bill**

| | |
|---|---|
| **Item No:** | 18 |
| **Item Name:** | KSRB 4.9.1 : Providing T.M.Tsteel reinforcement for R.C.C. work inclu straightening, cutting, bending, hooking, placing in position, lapping and welding wherever required, tying with binding wire and anchoring to adjoiningmembers wherever necessary complete as per design (laps, hooks wastage shall not be measured and paid) cost of materials, labour, HO machinery complete as per specification No.KBS 4.6.3 Page No.19 I.No.4.46 |

**Measurement Date(s) :**

| Chainage / Land Mark | | Nos | Dia (mm) | Spacing (mm) | Length (m) | Constant | Qty | REMAR |
|---|---|---|---|---|---|---|---|---|
| **Steel for RCC Drain** | | | | | | | | |
| **Isaac Layout** | | | | | | | | |
| **1st Cross** | | | | | | | | |
| **From Ch:-0.00-35.00mtrs** | | | | | | | | |
| Main rod | 1 | 200 | 10.00 | 0.175 | 2.00 | 0.617 | 246.91 | |
| Distribution | 1 | 10 | 10.00 | 0.200 | 35.00 | 0.617 | 216.05 | |
| **6th Cross** | | | | | | | | |
| **From Ch:-0.00-32.00mtrs** | | | | | | | | |
| Main rod | 1 | 183 | 10.00 | 0.175 | 2.00 | 0.617 | 225.93 | |
| Distribution | 1 | 10 | 10.00 | 0.200 | 32.00 | 0.617 | 197.53 | |
| **8th Cross** | | | | | | | | |
| **From Ch:-0.00-35.00mtrs** | | | | | | | | |
| Main rod | 1 | 200 | 10.00 | 0.175 | 2.00 | 0.617 | 246.91 | |
| Distribution | 1 | 10 | 10.00 | 0.200 | 35.00 | 0.617 | 216.05 | |
| **10th Cross** | | | | | | | | |
| **From Ch:-0.00-33.00mtrs** | | | | | | | | |
| Main rod | 1 | 189 | 10.00 | 0.175 | 2.00 | 0.617 | 233.33 | |
| Distribution | 1 | 10 | 10.00 | 0.200 | 33.00 | 0.617 | 203.70 | |
| **Chowdeshwari Layout Main Road** | | | | | | | | |
| **From Ch:-0.00-27.40mtrs** | | | | | | | | |
| Main rod | 1 | 158 | 10.00 | 0.175 | 2.60 | 0.617 | 253.58 | |
| Distribution | 1 | 13 | 10.00 | 0.200 | 27.40 | 0.617 | 219.88 | |
| **From Ch:-32.40-89.90mtrs** | | | | | | | | |
| Main rod | 1 | 330 | 10.00 | 0.175 | 3.50 | 0.617 | 712.96 | |
| Distribution | 1 | 18 | 10.00 | 0.200 | 57.50 | 0.617 | 638.89 | |
| **2nd Main Surabhi Layout** | | | | | | | | |
| **Cross:-1(RHS)** | | | | | | | | |
| Main rod | 1 | 1542 | 10.00 | 0.175 | 2.00 | 0.617 | 1903.70 | |
| Distribution | 1 | 10 | 10.00 | 0.200 | 269.70 | 0.617 | 1664.81 | |

Fed Alaca Consulting Engineers (India) Pvt. Ltd.,

Asst. Executive Engineer
Yelahanka Sub. Divison
(BBMP Ynk. Zn)
Yelahanka, Bangalore

| Chainage / Land Mark | | Nos | Dia (mm) | Spacing (mm) | Length (m) | Constant | Qty | REMARKS |
|---|---|---|---|---|---|---|---|---|
| **Cross:-1(LHS)** | | | | | | | | |
| Main rod | 1 | 563 | 10.00 | 0.175 | 2.00 | 0.617 | 695.06 | |
| Distribution | 1 | 10 | 10.00 | 0.200 | 98.30 | 0.617 | 606.79 | |
| **2nd Main Surabhi Layout** | | | | | | | | |
| **Culvert 1 (Inner)** | | | | | | | | |
| **Cross:-1(RHS)** | | | | | | | | |
| Main rod | 1 | 35 | 12.00 | 0.175 | 2.10 | 0.889 | 65.33 | |
| Distribution | 1 | 11 | 10.00 | 0.200 | 6.00 | 0.617 | 40.74 | |
| **Outer** | | | | | | | | |
| **Cross:-1(RHS)** | | | | | | | | |
| Main rod | 1 | 35 | 12.00 | 0.175 | 2.50 | 0.889 | 77.78 | |
| Distribution | 1 | 13 | 10.00 | 0.200 | 6.00 | 0.617 | 48.15 | |
| **Culvert 2 (Inner)** | | | | | | | | |
| **Cross:-1(RHS)** | | | | | | | | |
| Main rod | 1 | 38 | 12.00 | 0.175 | 2.10 | 0.889 | 70.93 | |
| Distribution | 1 | 11 | 10.00 | 0.200 | 6.40 | 0.617 | 43.46 | |
| **Outer** | | | | | | | | |
| **Cross:-1(RHS)** | | | | | | | | |
| Main rod | 1 | 38 | 12.00 | 0.175 | 2.50 | 0.889 | 84.44 | |
| Distribution | 1 | 13 | 10.00 | 0.200 | 6.40 | 0.617 | 51.36 | |
| **2nd Main Surabhi Layout** | | | | | | | | |
| **Cross:-2(RHS)** | | | | | | | | |
| Main rod | 1 | 534 | 10.00 | 0.175 | 2.00 | 0.617 | 659.26 | |
| Distribution | 1 | 10 | 10.00 | 0.200 | 93.30 | 0.617 | 575.93 | |
| **Cross:-2(LHS)** | | | | | | | | |
| Main rod | 1 | 534 | 10.00 | 0.175 | 2.00 | 0.617 | 659.26 | |
| Distribution | 1 | 10 | 10.00 | 0.200 | 93.30 | 0.617 | 575.93 | |
| **3rd Main Surabhi Layout** | | | | | | | | |
| **Cross:-1(RHS)** | | | | | | | | |
| Main rod | 1 | 208 | 10.00 | 0.175 | 2.00 | 0.617 | 256.79 | |
| Distribution | 1 | 10 | 10.00 | 0.200 | 36.30 | 0.617 | 224.07 | |
| **5th Cross Road Venkatala** | | | | | | | | |
| **Cross Road( LHS & RHS)** | | | | | | | | |
| Main rod | 2 | 218 | 10.00 | 0.175 | 1.65 | 0.617 | 444.07 | |
| Distribution | 2 | 9 | 10.00 | 0.200 | 38.00 | 0.617 | 422.22 | |
| **Cross:-2(RHS)** | | | | | | | | |
| Main rod | 1 | 27 | 10.00 | 0.175 | 1.65 | 0.617 | 27.50 | |
| Distribution | 1 | 9 | 10.00 | 0.200 | 4.50 | 0.617 | 25.00 | |
| **Harohalli Deck Slab(Top Rod)** | | | | | | | | |
| Main rod | 1 | 29 | 16.00 | 0.200 | 8.70 | 1.580 | 398.70 | |
| Distribution | 1 | 44 | 16.00 | 0.200 | 5.60 | 1.580 | 389.37 | |
| **Bottom Rod** | | | | | | | | |
| Main rod | 1 | 29 | 16.00 | 0.200 | 9.00 | 1.580 | 412.44 | |
| Distribution | 1 | 45 | 16.00 | 0.200 | 5.60 | 1.580 | 398.22 | |

For Alcon Consulting Engineers (India) Pvt. Ltd.,

Asst. Executive Engineer
Yelahanka Sub. Divison
(BBMP Ynk. Zo)
Yelahanka, Bangalore

| Chainage / Land Mark | Nos | Dia (mm) | Spacing (mm) | Length (m) | Constant | Qty | REMARK |
|---|---|---|---|---|---|---|---|
| **For Parapet Wall(Inner)** | | | | | | | |
| Main rod | 1 | 33 | 12.00 | 0.175 | 0.80 | 0.889 | 23.47 |
| Distribution | 1 | 6 | 10.00 | 0.150 | 5.60 | 0.617 | 20.74 |
| **Outer** | | | | | | | |
| Main rod | 1 | 33 | 12.00 | 0.175 | 1.05 | 0.889 | 30.80 |
| Distribution | 1 | 7 | 10.00 | 0.150 | 5.60 | 0.617 | 24.20 |
| | | | | | **Total Qty** | **14532.26** | **kg** |
| | | | | | **Total Qty** | **14.532** | **Tonne** |

Contractor Representative

For Aecom Consulting Engineers (India) Pvt. Ltd.,

Consultant Representative

Assistant Engineer
Ward No. 01 & 02
BBMP

Asst.Executive Engineer
Yelahanka Sub-Division
BBMP

**BRUHAT BANGALORE MAHANAGARA PALIKE**

**Name of work: Comprehensive Development of Roads and Drains in Ward No. 1 and 2 in Yelahanka Sub Division**

**Measurement Sheet**

**3rd & Final Bill**

| Item No: | 19 |
|---|---|
| Item Name: | Providing precast slab of 100mm thick including cost of all materials labour curing transportation loading unloading etc complete as per the direction of engineer in charge Data rate. |

**Measurement Date(s) :**

| Chainage / Land Mark | | Nos | L (m) | B (m) | B1 (m) | Avg B (m) | D (m) | Qty | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| **For New RCC Drain** | | | | | | | | | |
| **Isaac Layout** | | | | | | | | | |
| **1st Cross** | | | | | | | | | |
| 0.00 | 30.00 | 1 | 30.00 | 0.90 | | 0.90 | | 27.00 | |
| 30.00 | 35.00 | 1 | 5.00 | 0.90 | | 0.90 | | 4.50 | |
| **11th Cross (East side)** | | | | | | | | | |
| 0.00 | 30.00 | 1 | 30.00 | 0.90 | | 0.90 | | 27.00 | |
| 30.00 | 32.00 | 1 | 2.00 | 0.90 | | 0.90 | | 1.80 | |
| **9th Cross** | | | | | | | | | |
| 0.00 | 30.00 | 1 | 30.00 | 0.90 | | 0.90 | | 27.00 | |
| 30.00 | 35.00 | 1 | 5.00 | 0.90 | | 0.90 | | 4.50 | |
| **11th Cross (West side)** | | | | | | | | | |
| 0.00 | 30.00 | 1 | 30.00 | 0.90 | | 0.90 | | 27.00 | |
| 30.00 | 33.00 | 1 | 3.00 | 0.90 | | 0.90 | | 2.70 | |
| **Chowdeshwari Layout Main Road** | | | | | | | | | |
| 0.0 | 27.4 | 1 | 27.40 | 0.90 | | 0.90 | | 24.66 | |
| 27.4 | 32.4 | 1 | 5.00 | | | | | | Culvert |
| 32.4 | 50.0 | 1 | 17.60 | 1.20 | | 1.20 | | 21.12 | |
| 50.0 | 80.0 | 1 | 30.00 | 1.20 | | 1.20 | | 36.00 | |
| 80.0 | 89.9 | 1 | 9.90 | 1.20 | | 1.20 | | 11.88 | |
| **2nd Main Surabhi Layout** | | | | | | | | | |
| **Cross:-1(RHS)** | | | | | | | | | |
| 0.0 | 30.0 | 1 | 30.00 | 0.75 | | 0.75 | | 22.50 | |
| 30.0 | 60.0 | 1 | 30.00 | 0.75 | | 0.75 | | 22.50 | |
| 60.0 | 75.0 | 1 | 15.00 | 0.75 | | 0.75 | | 11.25 | |
| 75.0 | 90.0 | 1 | 15.00 | | | | | | BS Slabs |
| 90.0 | 101.4 | 1 | 11.40 | 0.75 | | 0.75 | | 8.55 | |
| 101.4 | 107.4 | 1 | 6.00 | | | | | | Culvert |
| 107.4 | 120.0 | 1 | 12.60 | 0.75 | | 0.75 | | 9.45 | |
| 120.0 | 132.4 | 1 | 12.40 | | | | | | BS Slabs |
| 132.4 | 138.8 | 1 | 6.40 | | | | | | Culvert |
| 138.8 | 150.0 | 1 | 11.20 | 0.75 | | 0.75 | | 8.40 | |
| 150.0 | 180.0 | 1 | 30.00 | 0.75 | | 0.75 | | 22.50 | |

For Aloom Consulting Engineers (India) Pvt. Ltd.,

Asst. Executive Engineer
Yelahanka Sub. Divison
(BBMP Ynk. Zn)
Yelahanka, Bangalore

| Chainage | | Nos | L | B | B1 | Avg B | D | Qty | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| Land Mark | | | (m) | (m) | (m) | (m) | (m) | | |
| 180.0 | 210.0 | 1 | 30.00 | 0.75 | | 0.75 | | 22.50 | |
| 210.0 | 240.0 | 1 | 30.00 | 0.75 | | 0.75 | | 22.50 | |
| 240.0 | 270.0 | 1 | 30.00 | 0.75 | | 0.75 | | 22.50 | |
| 270.0 | 282.1 | 1 | 12.10 | 0.75 | | 0.75 | | 9.08 | |
| **Cross:-1(LHS)** | | | | | | | | | |
| 0.0 | 30.0 | 1 | 30.00 | 0.75 | | 0.75 | | 22.50 | |
| 30.0 | 60.0 | 1 | 30.00 | 0.75 | | 0.75 | | 22.50 | |
| 60.0 | 90.0 | 1 | 30.00 | 0.75 | | 0.75 | | 22.50 | |
| 90.0 | 98.3 | 1 | 8.30 | 0.75 | | 0.75 | | 6.23 | |
| **2nd Main** | | | | | | | | | |
| **Cross:-2(RHS)** | | | | | | | | | |
| 0.0 | 30.0 | 1 | 30.00 | 0.75 | | 0.75 | | 22.50 | |
| 30.0 | 60.0 | 1 | 30.00 | 0.75 | | 0.75 | | 22.50 | |
| 60.0 | 90.0 | 1 | 30.00 | 0.75 | | 0.75 | | 22.50 | |
| 90.0 | 93.3 | 1 | 3.30 | 0.75 | | 0.75 | | 2.48 | |
| **Cross:-2(LHS)** | | | | | | | | 0.00 | |
| 0.0 | 30.0 | 1 | 30.00 | 0.75 | | 0.75 | | 22.50 | |
| 30.0 | 60.0 | 1 | 30.00 | 0.75 | | 0.75 | | 22.50 | |
| 60.0 | 90.0 | 1 | 30.00 | 0.75 | | 0.75 | | 22.50 | |
| 90.0 | 93.3 | 1 | 3.30 | 0.75 | | 0.75 | | 2.48 | |
| **3rd Main** | | | | | | | | | |
| **Cross:-1(RHS)** | | | | | | | | | |
| 0.0 | 30.0 | 1 | 30.00 | 0.75 | | 0.75 | | 22.50 | |
| 30.0 | 36.3 | 1 | 6.30 | 0.75 | | 0.75 | | 4.73 | |
| **Cross:-2(RHS)** | | | | | | | | | |
| 0.0 | 30.0 | 1 | 30.00 | 0.75 | | 0.75 | | 22.50 | |
| 30.0 | 60.0 | 1 | 30.00 | 0.75 | | 0.75 | | 22.50 | |
| 60.0 | 86.4 | 1 | 26.40 | 0.75 | | 0.75 | | 19.80 | |
| **5th Cross Road Venkatala** | | | | | | | | | |
| **Cross Road( LHS & RHS)** | | | | | | | | | |
| 0.00 | 30.00 | 2 | 30.00 | 0.75 | | 0.75 | | 45.00 | |
| 30.00 | 38.00 | 2 | 8.00 | 0.75 | | 0.75 | | 12.00 | |
| 0.00 | 4.50 | 1 | 4.50 | 0.75 | | 0.75 | | 3.38 | |
| | | | | | | | **Total Qty** | **762.96** | **Sqm** |

Contractor Representative

For Aasa Consulting Engineers (India) Pvt. Ltd.

Consultant Representative

Assistant Engineer
Ward No. 01 & 02
BBMP

Asst.Executive Engineer
Yelahanka Sub-Division
BBMP

**BRUHAT BANGALORE MAHANAGARA PALIKE**

**Name of work: Comprehensive Development of Roads and Drains in Ward No. 1 and 2 in Yelahanka Sub Division**

**Measurement Sheet**

**3rd & Final Bill**

| | |
|---|---|
| **Item No:** | **20** |
| **Item Name:** | **Providing precast slab of 250mm thick including cost of all materials labour, curing transportation, loading unloading etc complete as per direction of engineer in charge Data Rate.** |
| **Measurement Date(s) :** | |

| Chainage / Land Mark | | Nos | L (m) | B (m) | B1 (m) | Avg B (m) | D (m) | Qty | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| **For New Rcc Drain** | | | | | | | | | |
| **Surabhi Layout 2nd Cross** | | | | | | | | | |
| 101.4 | 107.4 | 1 | 6.00 | 1.20 | | 1.20 | | 7.20 | Culvert |
| 132.4 | 138.8 | 1 | 6.40 | 1.20 | | 1.20 | | 7.68 | Culvert |
| | | | | | | | **Total Qty** | **14.88** | **Sqm** |

Contractor Representative

For Aecom Consulting Engineers (India) Pvt. Ltd.,
Consultant Representative

Assistant Engineer
Ward No.01 & 2
BBMP

Asst.Executive Engineer
Yelahanka Sub-Division
BBMP

**BRUHAT BANGALORE MAHANAGARA PALIKE**

**Name of work: Comprehensive Development of Roads and Drains in Ward No. 1 and 2 in Yelahanka Sub Division**

**Measurement Sheet**

**3rd & Final Bill**

| | |
|---|---|
| **Item No:** | **21** |
| **Item Name:** | **KSRB 14.6-1: Providing and laying heavy duty cobble stones 60mm thick interlock pavers, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness ) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications.Specification** |

**Measurement Date(s) :**

| Chainage / Land Mark | | Nos | L (m) | B (m) | B1 (m) | Avg B (m) | D (m) | Qty | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| **For Cobble Stones** | | | | | | | | | |
| 0.00 | 8.15 | 1 | 8.15 | 3.90 | | 3.90 | | 31.79 | |
| 0.00 | 13.70 | 1 | 13.70 | 18.70 | | 18.70 | | 256.19 | |
| 0.00 | 5.90 | 1 | 5.90 | 8.95 | | 8.95 | | 52.81 | |
| 0.00 | 13.40 | 1 | 13.40 | 12.00 | | 12.00 | | 160.80 | |
| 0.00 | 5.60 | 1 | 5.60 | 3.60 | | 3.60 | | 20.16 | |
| 0.00 | 5.90 | 1 | 5.90 | 3.80 | | 3.80 | | 22.42 | |
| 0.00 | 15.30 | 1 | 15.30 | 14.00 | | 14.00 | | 214.20 | |
| 0.00 | 3.00 | 1 | 3.00 | 0.90 | | 0.90 | | 2.70 | |
| 0.00 | 8.60 | 1 | 8.60 | 2.90 | | 2.90 | | 24.94 | |
| 0.00 | 4.00 | 0.5 | 4.00 | 4.60 | | 4.60 | | 9.20 | Triangle Portion |
| | | | | | | | | | |
| 0.00 | 8.00 | 1 | 8.00 | 2.00 | | 2.00 | | 16.00 | |
| 0.00 | 6.40 | 1 | 6.40 | 8.20 | | 8.20 | | 52.48 | |
| 0.00 | 5.50 | 1 | 5.50 | 7.00 | | 7.00 | | 38.50 | |
| 0.00 | 8.60 | 1 | 8.60 | 2.00 | | 2.00 | | 17.20 | |
| 0.00 | 6.10 | 1 | 6.10 | 2.00 | | 2.00 | | 12.20 | |
| 0.00 | 12.00 | 1 | 12.00 | 3.10 | | 3.10 | | 37.20 | |
| | | | | | | | **Total Qty** | **968.78** | **Sqm** |

Contractor Representative

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Consultant Representative

Assistant Engineer
Ward No.01 & 2
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Asst Executive Engineer
Yelahanka Sub-Division
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**BRUHAT BANGALORE MAHANAGARA PALIKE**

**Name of work: Comprehensive Development of Roads and Drains in Ward No. 1 and 2 in Yelahanka Sub Division**

**Measurement Sheet**

**3rd & Final Bill**

| **Item No:** | **23** |
|---|---|
| **Item Name:** | **Providing and fixing pre cast solid cement concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165 mm respectively 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting, including formwork, curing including cost of all materials , labour, hire charges of machinery loading, unloading, lead and lift transportation etc, complete.** |

**Measurement Date(s) :**

| Chainage / Land Mark | | Nos | L (m) | B (m) | B1 (m) | Avg B (m) | D (m) | Qty | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| **For Housing Board Building** | | | | | | | | | |
| 0.00 | 260.00 | 1 | 260.00 | | | | | 260.00 | |
| | | | | | | | **Total Qty** | **260.00** | **Mtrs** |
| | | | | | | | **Total Qty in No's** | **578.00** | **No's** |

Contractor Representative

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Yelahanka Sub-Division
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## BRUHAT BANGALORE MAHANAGARA PALIKE

**Name of work: Comprehensive Development of Roads and Drains in Ward No. 1 and 2 in Yelahanka Sub Division**

**Measurement Sheet**

**3rd & Final Bill**

| Item No: | 24 |
|---|---|
| Item Name: | KSRRB 300-1. Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 1.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 |
| Measurement Date(s) : | |

| | Chainage | | Nos | L | B | B1 | Avg B | D | Qty | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| | Land Mark | | | (m) | (m) | (m) | (m) | (m) | | |
| For CC Road | | | | | | | | | | |
| Kondappa layout 9th cross | | | | | | | | | | |
| | 0.00 | 1.50 | 1 | 1.50 | 3.80 | 3.80 | 3.80 | 0.420 | 2.39 | |
| | 0.00 | 15.00 | 1 | 15.00 | 3.10 | 3.50 | 3.30 | 0.425 | 21.04 | |
| | 15.00 | 30.00 | 1 | 15.00 | 3.50 | 4.20 | 3.85 | 0.425 | 24.54 | |
| | 30.00 | 45.00 | 1 | 15.00 | 4.20 | 4.10 | 4.15 | 0.425 | 26.43 | |
| | 45.00 | 60.00 | 1 | 15.00 | 4.10 | 4.00 | 4.05 | 0.425 | 25.79 | |
| | 60.00 | 75.00 | 1 | 15.00 | 4.00 | 4.10 | 4.05 | 0.420 | 25.52 | |
| | 75.00 | 90.00 | 1 | 15.00 | 4.10 | 3.90 | 4.00 | 0.420 | 25.20 | |
| | 90.00 | 108.00 | 1 | 18.00 | 3.90 | 3.30 | 3.60 | 0.420 | 27.22 | |
| Infront of Sai Baba Temple | | | | | | | | | | |
| | 0.00 | 15.30 | 1 | 15.30 | 4.80 | 5.00 | 4.90 | 0.420 | 31.49 | |
| | | | | | | | | Total Qty | 209.63 | Cum |

Contractor Representative

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## BRUHAT BANGALORE MAHANAGARA PALIKE

**Name of work: Comprehensive Development of Roads and Drains in Ward No. 1 and 2 in Yelahanka Sub Division**

**Measurement Sheet**

**3rd & Final Bill**

| Item No: | 27 |
|---|---|
| Item Name: | KSRRB M400-17: Providing, laying spreading and compacting graded stones aggregate to wet mix macadam specifications including premixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying, in uniform layers with paver in sub base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH specification 406 |

**Measurement Date(s) :**

| Chainage | | Nos | L | B | B1 | Avg B | D | Qty | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| Land Mark | | | (m) | (m) | (m) | (m) | (m) | | |
| **For Cobble Stones** | | | | | | | | | |
| 0.00 | 8.15 | 1 | 8.15 | 3.90 | | 3.90 | 0.15 | 4.77 | |
| 0.00 | 13.70 | 1 | 13.70 | 18.70 | | 18.70 | 0.15 | 38.43 | |
| 0.00 | 5.90 | 1 | 5.90 | 9.50 | | 9.50 | 0.15 | 8.41 | |
| 0.00 | 13.40 | 1 | 13.40 | 12.00 | | 12.00 | 0.15 | 24.12 | |
| 0.00 | 5.60 | 1 | 5.60 | 3.60 | | 3.60 | 0.15 | 3.02 | |
| 0.00 | 5.90 | 1 | 5.90 | 3.80 | | 3.80 | 0.15 | 3.36 | |
| 0.00 | 15.30 | 1 | 15.30 | 14.80 | | 14.80 | 0.15 | 33.97 | |
| 0.00 | 3.00 | 1 | 3.00 | 0.90 | | 0.90 | 0.15 | 0.41 | |
| 0.00 | 8.60 | 1 | 8.60 | 3.90 | | 3.90 | 0.15 | 5.03 | |
| 0.00 | 4.00 | 1 | 4.00 | 4.60 | | 4.60 | 0.15 | 1.38 | Trialgle Portion |
| | | | | | | | | | |
| 0.00 | 8.00 | 1 | 8.00 | 2.00 | | 2.00 | 0.15 | 2.40 | |
| 0.00 | 6.40 | 1 | 6.40 | 8.50 | | 8.50 | 0.15 | 8.16 | |
| 0.00 | 5.50 | 1 | 5.50 | 7.70 | | 7.70 | 0.15 | 6.35 | |
| 0.00 | 8.60 | 1 | 8.60 | 2.10 | | 2.10 | 0.15 | 2.71 | |
| 0.00 | 6.10 | 1 | 6.10 | 2.10 | | 2.10 | 0.15 | 1.92 | |
| 0.00 | 12.00 | 1 | 12.00 | 3.10 | | 3.10 | 0.15 | 5.58 | |
| | | | | | | | **Total Qty** | **150.02** | **Cum** |

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**BRUHAT BANGALORE MAHANAGARA PALIKE**

**Name of work: Comprehensive Development of Roads and Drains in Ward No. 1 and 2 in Yelahanka Sub Division**

**Measurement Sheet**

**3rd & Final Bill**

| | |
|---|---|
| **Item No:** | **33** |
| **Item Name:** | **KSRRB M600-1. Construction of dry lean cement concrete mix M5 with OPC cement @160Kgs, with 25mm and down size graded granite metal coarse aggregate at 0.86cum and fine aggregates @ 0.58cum Sub- base over a prepared sub-grade with (coarse and fine aggregate conforming to IS: 383,) aggregate cement ratio not to exceed 15:1,aggregate gradation after blending to be as per Table 600-1, cementcontent not to be less than 160 kg/ cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with a paver with electronic sensor, compacting** |

**Measurement Date(s) :**

| Chainage / Land Mark | | Nos | L (m) | B (m) | B1 (m) | Avg B (m) | D (m) | Qty | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| **For CC Road** | | | | | | | | | |
| **Kondappa layout 9th cross** | | | | | | | | | |
| 0.00 | 1.50 | 1 | 1.50 | 3.80 | 3.80 | 3.80 | 0.075 | 0.43 | |
| 0.00 | 15.00 | 1 | 15.00 | 3.10 | 3.50 | 3.30 | 0.075 | 3.71 | |
| 15.00 | 30.00 | 1 | 15.00 | 3.50 | 4.20 | 3.85 | 0.075 | 4.33 | |
| 30.00 | 45.00 | 1 | 15.00 | 4.20 | 4.10 | 4.15 | 0.075 | 4.67 | |
| 45.00 | 60.00 | 1 | 15.00 | 4.10 | 4.00 | 4.05 | 0.075 | 4.56 | |
| 60.00 | 75.00 | 1 | 15.00 | 4.00 | 4.10 | 4.05 | 0.075 | 4.56 | |
| 75.00 | 90.00 | 1 | 15.00 | 4.10 | 3.90 | 4.00 | 0.075 | 4.50 | |
| 90.00 | 108.00 | 1 | 18.00 | 3.90 | 3.30 | 3.60 | 0.075 | 4.86 | |
| **Infront of Sai Baba Temple** | | | | | | | | | |
| 0.00 | 15.30 | 1 | 15.30 | 4.80 | 5.00 | 4.90 | 0.075 | 5.62 | |
| | | | | | | | **Total Qty** | **37.24** | **Cum** |

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**BRUHAT BANGALORE MAHANAGARA PALIKE**

**Name of work: Comprehensive Development of Roads and Drains in Ward No. 1 and 2 in Yelahanka Sub Division**

**Measurement Sheet**

**3rd & Final Bill**

| Item No: | 34 |
|---|---|
| Item Name: | Cement concrete pavement.Construction of un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 design mix M30(at 360 kg per cum coarse aggregate @ 0.69 cum and fine aggregate @0.46 cum) , with 25mm and down size graded granite metal coarse aggregates and fine aggregtes , with superplastisiser @3lts confirming to IS9103-1999 caffirmed-2008 , mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work. |

**Measurement Date(s) :**

| Chainage | | Nos | L | B | B1 | Avg B | D | Qty | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| Land Mark | | | (m) | (m) | (m) | (m) | (m) | | |
| **For CC Road** | | | | | | | | | |
| **Kondappa layout 9th cross** | | | | | | | | | |
| 0.00 | 1.50 | 1 | 1.50 | 3.80 | 3.80 | 3.80 | 0.15 | 0.86 | |
| 0.00 | 15.00 | 1 | 15.00 | 3.10 | 3.50 | 3.30 | 0.15 | 7.43 | |
| 15.00 | 30.00 | 1 | 15.00 | 3.50 | 4.20 | 3.85 | 0.15 | 8.66 | |
| 30.00 | 45.00 | 1 | 15.00 | 4.20 | 4.10 | 4.15 | 0.15 | 9.34 | |
| 45.00 | 60.00 | 1 | 15.00 | 4.10 | 4.00 | 4.05 | 0.15 | 9.11 | |
| 60.00 | 75.00 | 1 | 15.00 | 4.00 | 4.10 | 4.05 | 0.15 | 9.11 | |
| 75.00 | 90.00 | 1 | 15.00 | 4.10 | 3.90 | 4.00 | 0.15 | 9.00 | |
| 90.00 | 108.00 | 1 | 18.00 | 3.90 | 3.30 | 3.60 | 0.15 | 9.72 | |
| **Infront of Sai Baba Temple** | | | | | | | | | |
| 0.00 | 15.30 | 1 | 15.30 | 4.80 | 5.00 | 4.90 | 0.15 | 11.25 | |
| | | | | | | | **Total Qty** | **74.47 Cum** | |

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